Term Mapper: A tool to facilitate the mapping of clinical terminologies

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Version 3 of the Read codes, the Read Thesaurus, is a comprehensive coded clinical terminology supporting the UK National Health Service (NHS) strategy for Information Management and Technology. The NHS Centre for Coding and Classification (NHS CCC) has been working in partnership with 18 of the hospital sites that have adopted this standard terminology.

Early evaluation of the individual sites development plans revealed a general need to map existing locally derived terminologies to the Read Thesaurus as a critical step in the implementation of Version 3. As existing tools were felt to be unsuitable for widespread use by non technical users, the NHS CCC in collaboration with Computer Aided Medical Systems (CAMS) has developed a user friendly and customisable software tool to support the mapping process. The first version of the tool has been been used to facilitate 10 mapping exercises in the first 5 months of it's development. We estimate a 50-70 % time saving for this process. Feedback from users is to be incorporated into a new version.

The current tool has the Read Version 3 Thesaurus preloaded. Any coded terminology could be substituted.

Specification

The tool has the following features:

- Map any terminology to Read Version 3
- Graphical user interface
- Runs in Windows
- Distributable
- User defined word equivalence
- User defined 'fuzziness'
- Calculates and displays percentage weighting of maps
- Allows browsing of the entire Version 3 Thesaurus
- ASCII text file input and output
- User guide

Usual mechanism of use

- Local terms are loaded from an ASCII text file and a database automatically created
- Various criteria are selected from Dialogue screens to customise fuzziness
- A batch mapping of all local terms is initiated
- The results are displayed and candidate maps accepted, rejected or refreshed by the user using different criteria
- The user can annotate a map with a free text comment field
- The results are exported to an ASCII text file with options to filter for all maps, accepted maps or unaccepted maps
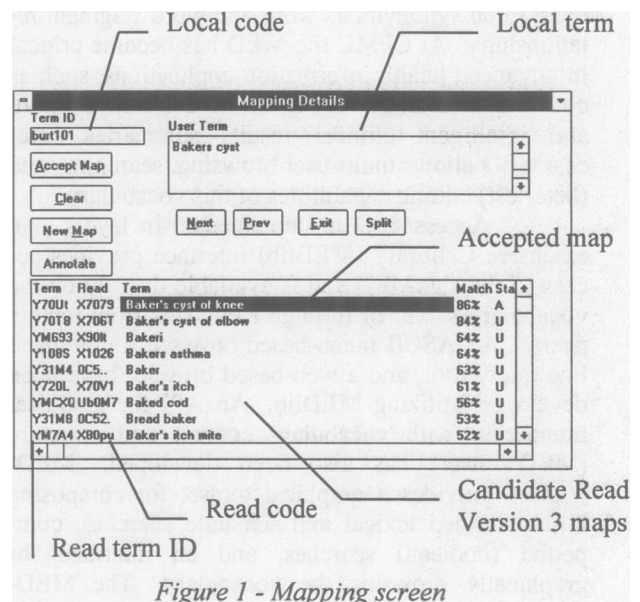

Figure 1 - Mapping screen

Mechanism of action

The local and Read terms are split into their component words. Candidate Read terms are identified by key word indexes. A match score is then computed for each candidate. Every word in the local term is compared to those in the Read term and the best score for each word found. The match score for the term is then a weighted average of the word scores.